The Mid Atlantic Nonpoint Source Pollution 2005 Annual Report

Introduction

In 1987, Congress established the Nonpoint Source (NPS) Pollution Management Program under Section 319 of the Clean Water Act (CWA). This program provides states with technical assistance and grant funding through the EPA to implement NPS pollution controls to achieve goals that protect, improve and restore water quality as described in State NPS pollution management program plans. Through Fiscal Year 2006 EPA has provided over $200 million in federal funds to States in the Middle Atlantic region.

Watershed Restoration

In order to focus adequate resources to achieve water quality goals, States develop Watershed Restoration Plans. When fully implemented, these plans are expected to restore fishable, swimmable and other designated uses to streams, rivers and lakes. States in our Middle Atlantic Region have developed approximately 40 watershed plans covering over 65 small watersheds. The cost to implement these plans will exceed $500 million. In addition, States are in the process of developing 55 plans covering an additional 110 watersheds.

Nonpoint Source Load Reductions:

Astronomical increases in annual load reductions of regionally and nationally significant pollutants have been reported by State Nonpoint Source Programs. These reductions were a result of the installation of Best Management Practices funded through Section 319 Clean Water Act grants. Reductions tied to abandoned mine drainage of aluminum, iron and manganese increased by 1100%, 580% and 6400%, respectively. Reductions tied to urban runoff of suspended solids and bacteria increased by 100% and 61% respectively. Finally, reductions of pollutant loading from nitrogen and phosphorus to surface waters increased by 44% and 20% respectively.

The following summary highlights the environmental outcomes of each of the State programs. Annual Nonpoint Source (NPS) Reports are submitted from the states in response to Section 319 (h)(8) and (11) of the Clean Water Act (33 USC 1329).

Delaware

Delaware's NPS Program is managed by the Delaware Department of Natural Resources and Environmental Control. Public Support and involvement are important for the success of Delaware's NPS reaching their goals and implementation of their strategy.

Agriculture

- Through the Delaware CREP program, employment of vegetative buffers resulted in the following annual calculated pollutant load reductions: nitrogen has been reduced 185,209 lbs/year; phosphorus has been reduced 8,263 lbs/year, and sediment has been reduced 33,071 tons/year.
- Pre-sidedress nitrate testing (PSNT) of cornfields resulted in 53,265 less lbs. of nitrogen being applied to fields.
- The Kent Conservation District manned a booth at the Delaware State Fair representing Delaware's Conservation Partnership that included an interactive soil display.

Silviculture

- The Delaware Forest Service (DFS) Urban & Community Forestry (U&CF) Program received funding to support their annual private landowner assistance and community forestry grant program. Through funding, riparian buffers were planted in private urban/suburban public owned land throughout the state.

UCF Planting at Noreade Development.

Projects included:

Stonewold Community Tree Planting in the Red Clay Watershed
Delaware City Tree Planting Project in the Delaware River Watershed
Re-Oaking of Big Oak Park in the Smyrna Watershed
Town of Harrington Main Street Beautification Project in the Chop tank Watershed
Ross Mansion Tree Planting Program, Nanticoke Watershed

Charter School of Wilmington, 2005 Delaware Envirothon Champions.

Delaware Clean Marina Program

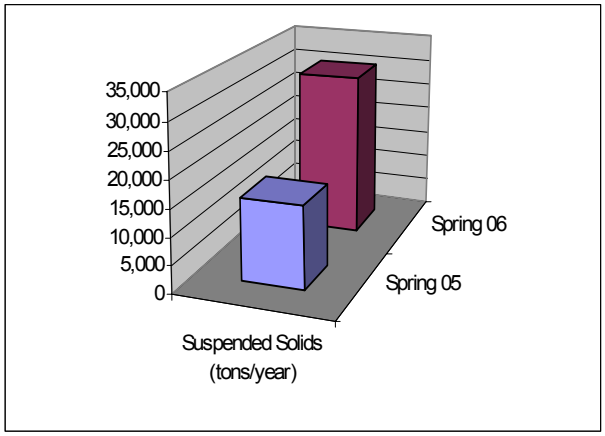
- Sandy Beach Marina, in Dagsboro, DE became the first private marina in October, 2005 to receive a "Clean Marina" Certification.
- The Sussex Conservation District is providing $4,000 in cost-share funding to assist four small marina's to establish a federally mandated Spill Prevention, Control, and Countermeasure Plan.

Education & Outreach

- "Delaware Envirothon", a day dedicated to "Educational Environmental Challenges", was attended by 21 teams of high school students from across Delaware. Teams answered questions dealing with topics such as soils, land use, forestry and aquatic ecology. At the conclusion of the competition, Charter School of Wilmington was named state champions for 2005. Members of the winning team received a $3,000 a year scholarship to Wesley College, in addition to a $500 scholarship from Delaware Envirothon.
- Second place finishers received the $300.00 Ernest J. Zimmerman award to put towards an environmental education project at their school.
- The Sussex Conservation District organized several outreach events to educate the public on soil conservation practices, and the availability of assistance to landowners in order to implement BMPs on their property. Other activities included: a "Soil Tunnel" exhibit at the Delaware State Fair, an Ecowalk Earth Day Celebration and Coast Day at the University of Delaware in Lewes, and a Cooperator's Dinner at which landowners were commended for their participation in District Programs.

District of Columbia

District of Columbia's NPS Program is headed by the Water Protection Division (WPD)/Department of Health. Due to the highly urbanized setting and municipality of landowners, unique pollution problems which require creative and innovative techniques are required in order to reduce pollution. The NPS program is characterized by long term goals, with short term milestones and achievements used to mark progress.



Reductions tied to urban runoff of suspended solids increased by 100% throughout Region III in 2005.

Environmental Education & Outreach

- WPD and Casey Trees planted one-hundred trees at 10 DC Public Schools.
- WPD improved schoolyards under the *Greener Schools, Cleaner Water* program.
  - The Schoolyard Greening Consortium showcased 5 DC Public Schools gardens, displaying outdoor classroom sites to approximately 35 teachers interested in constructing their own outdoor classrooms.
- WPD assisted DC Environmental Education Consortium (DCEEC) with revising its vision and mission statements; DCEEC is now comprised of 30 organizations and 75 individuals.
- A Living Classrooms Foundation grant provided "Meaningful Bay Experiences" to approximately 430 District school children.

Inspection & Enforcement

- The WPD improved compliance with District of Columbia soil erosion, sediment control and stormwater management regulations.
- WPD strengthened soil erosion, sediment control and stormwater management regulations to meet MS4 permit requirements.
- WPD improved guidance for the regulated community with the creation of the *Erosion & Sediment Control Handbook*, monitored stormwater BMP effectiveness on filtration practices and established necessary agreements to update the *District of Columbia Soil Survey* which will provide needed information to urban planners, developers and engineers.

Sediment, Stormwater, Floodplain Management, and LID

- WPD reviewed 2,333 construction plans for compliance with sediment and stormwater pollution control, and processed environmental impact screening forms for 49 projects.
- WPD received 16 applications for innovative stormwater project support through the WPD 'Put a LID on it!' program.
- WPD developed an innovative partnership between the USDA Natural Resource Conservation Service and EHA, whereby the USDA will act as the design/build for a series of demonstration LID projects, in addition to funding several showcase LID projects.

Pollution Prevention

- WPD staffed a Clean Marina exhibit booth at the Washington Boat Show to educate the public about NPS pollution from boating activities.
- WPD held a Clean Marina workshop for marina owners, managers and yacht club officers from 10 facilities.
- WPD completed a Phase I soils assessment of DC park properties and selected sites for Phase II demonstration projects.
- The DC Soil and Water Conservation District began crafting a new five-year plan.
- 2,000 storm drain markers have been installed throughout the city by approximately 500 volunteers.

Habitat Creation and Restoration

- Anacostia River Fringe wetland monitoring has collected 3 years of data.
- In Hickey Run, two possible final design options have been submitted to the US National Arboretum. Watts Branch stakeholders continued to work with USFWS to coordinate restoration plans.
- Kingman Island restoration designs were completed by USACE.
- WPD negotiated an MOU between WASA and DC DPR that will lead to the eventual design and construction of restoration work at Pope Branch.

Maryland

Maryland's NPS Program is headed by Maryland Department of the Environment, which plays a leading role in improvement and protection of water quality by promoting and funding state and local efforts, water quality monitoring, stream and wetland restoration, education/outreach, and other measures to reduce and track NPS pollution loads. Home to the nations largest estuary system, Maryland's waters provide recreation, food and water for residents, and jobs for the economy, all of which are currently being threatened by NPS pollution.

Implementation Projects

- **Corsica River Targeted Watershed-**MD DNR and representatives from Centreville developed a WRAS (Watershed Restoration Action Strategy) intended to address restoration goals and the TMDL. Projects included in this targeted watershed initiative include:

  Corsica River Watershed Restoration Project Agriculture Demonstration Projects: Agricultural landowners are targeted for increased technical assistance in the design and installation of BMPs that emphasize sediment control and animal waste management. Strong emphasis is placed on riparian forest buffers enhancement. This project also addresses the need for capacity assistance in order to facilitate and accelerate the implementation of BMPs, enhance the participation in MD's cover crop program and support other demonstration BMPs with particular focus on farmette horse pasture management demonstrations.

  Corsica River Watershed Restoration Project Team of Centreville Demonstration Project: This project funds stormwater retrofit/stormwater management techniques such as wetland creation, riparian buffer

plantings, and fish migration barrier removals if necessary. Wetlands, especially when constructed adjacent to waterways will provide added benefits of flood attenuation, sediment retention, and will slow stormwater sufficiently to allow the stream system to heal unstabilized stream banks immediately downstream of the wetland area. This project also addressed the need for capacity assistance. It funds a watershed/grants manager and outreach manager to accelerate the application of urban code and programmatic development, outreach and urban BMPs in the watershed. It is through this additional management capacity and technical support that water quality improvement, in both surface and ground water, will lead to improving waters in the Corsica River. This project funds Programmatic Changes, to professionally review and recommend code changes, programmatic changes, and local/state regulation changes. The effort also includes extensive public outreach and education and upfront participation in the process.

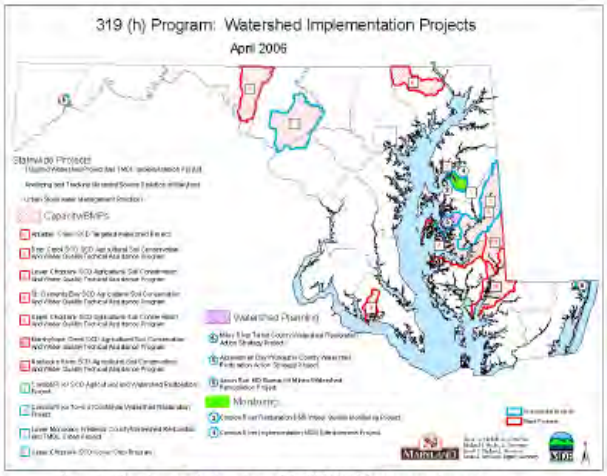


Figure 3: Map showing the locations of the FFY2005 Implementation projects

Corsica River Watershed Maryland Department of the Environment's Implementation Monitoring Project: The goal of this project is to monitor the effectiveness of retrofitting conventional OSDSs with nitrogen reducing technology in the Corsica watershed. This project will monitor the Town of Centreville's upgrade of 30 septic systems that lie in close proximity to impaired streams. Conventional systems that are currently permitted in the County discharge 40 - 60 mg/l of nitrogen (estimated N content in what flows from the whole septic system into the groundwater). There are existing systems that are installed in marginal soils, some are very poorly (if ever) maintained, some lie within 300 feet of a tributary stream or the edge of tidal water, and employ dated technology not capable of any significant nutrient reduction.

Corsica River Restoration Project Maryland Department of Natural Resources Monitoring for Interim and Post Project Water Quality: This project is a comprehensive monitoring project being conducted to assess early progress in the Corsica River Watershed Restoration Project and to provide feedback necessary to enhance the success of future watershed restoration projects which include: cover crop implementation results, stormwater BMP implementation results, and monitoring for living resource projections.

Watershed Restoration Action Strategies Project: The WRAS Program provided local governments with extensive watershed technical assessment, support, and restoration services. The goal of WRAS-sponsored watershed planning was to protect and restore water quality and habitats. WRASs helped local governments to assess and prioritize environmental needs, and implement restoration and protection projects by providing a wealth of local-scale data to assist with priority setting. In addition, the WRAS program helped ensure all entities (MDE, DNR and MDA, SHA, etc.), were coordinating, targeting and leveraging their efforts in priority watersheds. Each year the WRAS Program, through a competitive process, selected five county or municipal governments to develop a WRAS. Each WRAS took two years to develop and thus ten WRASs were ongoing at any given time. The following watersheds were selected for funding during 2005:


Spray Irrigation of Wastewater Treatment Plant Effluent in the Corsica River Watershed.

- *Assawoman Bay*- located in Worchester County, the goal of the WRAS is to restore habitat and facilitate improvements in water quality
- *Deer Creek*- located in Harford County, the goals for this WRAS include preserving large blocks of contiguous forest land, maintaining water quality in areas experiencing development, and establishing riparian buffers
- *Miles River*- located in Talbot County, the WRAS proposed to focus on Riparian Buffers and Stewardship and community engagement
- *Prettyboy Reservoir*- located in Baltimore County, the WRAS proposed to include the program change of zoning changes and development of better targeting mechanisms for existing agricultural preservation programs.
- *Port Tobacco River*- located in Charles County, this WRAS includes the

possible goals of achieving safe levels of bacteria, reducing nutrient loading by increasing protection of existing forest, and reducing sediment from stream bank erosion by restoring 50% of the eroding sites.

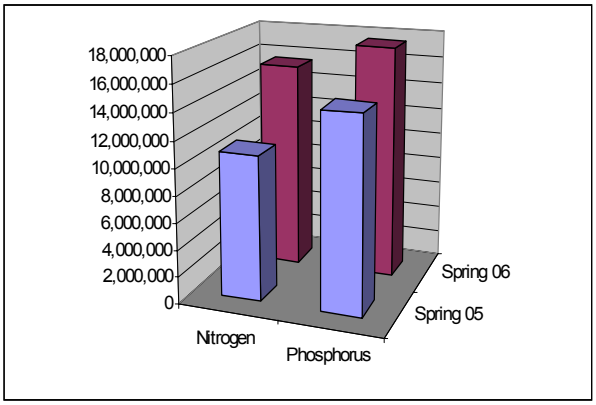
Current 319(h) funded projects:

- *Aaron Run Watershed Project:* In this project the Maryland Bureau of Mines intended to design and construct best treatment technologies for acid mine drainage at four sites in the watershed. The construction of these treatment systems will abate the impacts of the presently uncontrolled discharge of acid mine drainage from four sites. With the abatement of these acid discharges, the mainstem of Aaron Run will recover good water quality capable of sustaining native fish populations. This project also planned to include the re-introduction of native brook and brown trout to the upper reaches isolated by several waterfalls in the watershed.
- *Lower Monocacy Watershed Restoration Project/ Linganore TMDL Urban Demonstration Project:* The project supported riparian forest buffer enhancements and the use of onsite NPS pollution reductions. Ongoing program assistance for landowners, information and outreach promoting urban BMPs, signage, and increased outreach activities for participation provides the framework to accomplish this comprehensive NPS treatment. Additionally, stormwater retrofits are intended to reduce runoff from impervious areas that contribute significantly to instream erosion.
- *Upper Choptank Cover Crop Program Project*: This project established a Winter Cover Crop program in the Upper Choptank watershed for approximately 3,062 acres. This project built upon the State's current cover crop initiative that is inadequate to address the needs based upon C2K funding analysis.
- *Urban Stormwater Management Practices Database:* This project continues to support the need for coordination and communication between jurisdictions regarding stormwater management data. This project fulfills the need to continue providing necessary information to the Chesapeake Bay Program.
- *Analyzing and Tracking NPS Data:* This ongoing project has successfully coordinated the consolidation of NPS BMPs for inclusion in the Chesapeake Bay Watershed Model. It also achieved the goal of coordinating with other agencies concerning BMPs.

Soil Conservation and Water Quality Plans (acres)	19,266
Nutrient Management plans (acres)	5,896
Soil Conservation and Water Quality Plans	218
Nutrient Management Plans	48
Best Management Practices (General)	438
Stream Buffer (Forest) Plantings	12
Animal Waste Storage Structures	8
Stream Fencing (feet)	8,000
Water Troughs	7
Grassed Waterways	2
Stream Crossings	2
Conservation Cropping (acres)	1,000
Conservation Tillage (acres)	200
Cover Crops (acres)	150
CREP (acres)	306

Agricultural Programs 2005 Outcomes as proposed in Project Work Plans.

Agricultural Programs: The following watersheds received funding for technical assistance and various BMP Implementation: Antietam Creek Target Watershed, Deer Creek, Lower Choptank, Lower Potomac- St Clements Bay, Upper Choptank, Marshyhope Creek and Nanticoke River.



Reductions of the pollutant loading from nitrogen, phosphorus to surface waters increased by 44% and 20% respectively through Region III in 2005.

Pennsylvania

Pennsylvania's NPS Program is managed by the Department of Environmental Protection in the Bureau of Watershed Management. The main causes of stream impairment from NPS pollution in Pennsylvania are abandoned mine drainages, agriculture and urban runoff/storm sewers.

Agriculture

- The 2002 Farm Bill authorizes CREP through 2007. Approximately 157,000 acres of the original 265,00 acre goal has been met in the Pennsylvania's 59 eligable CREP counties.
- Alternative riparian buffer designs are being incorporated into grazing projects where pastures are adjacent to streams.
- Stream bank fencing with riparian buffers in pasturelands is being implemented statewide.

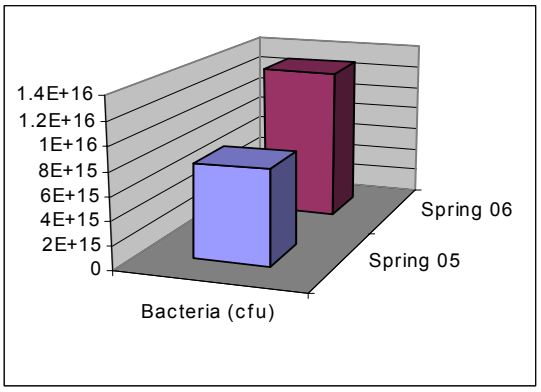
The number of counties participating in the PA Department of Agriculture's ChemSweep Program continues to increase; 17 counties are currently participating in the program.

Construction And Urban

- Conducted 9 administrative and technical training sessions for conservation district staff.
- Continued to implement, revise and clarify NPDES construction and MS4 program guidance documents to reflect changes in the federal NPDES Phase II regulations.
- Statewide, 49 counties have completed 101 storm water management plans involving 865 municipalities. An additional 24 storm water management plans and updates are being prepared and reviewed.
- EPA Region III, PADEP, and Philadelphia Water Department (PWD) have partnered together to form the Schuylkill Action Network (SAN) Stormwater Workgroup.

Silviculture

- In 2005, 157 individuals participated in the Environmental Logging/Adv. Environmental Logging training. Approximately 260 individuals have taken training on continuing education courses.
- During 2005, 1,659 SFI packets were distributed to landowners prior to timber harvesting.
- To date, more than 2,300 miles of forested riparian buffers have been added statewide.
- Free planting stock was provided to landowners planting riparian buffers within the Chesapeake Bay drainage basin in Pennsylvania.
- Plants were also provided through TreeVitalize, a program launched in Pennsylvania to plant more than 20,000 shade trees and add 1,000 acres of forested riparian buffers in Bucks, Chester, Delaware, Montgomery and Philadelphia counties.



Reductions tied to urban runoff of bacteria increased by 61% throughout Region III in 2005.

Resource Extraction Group

- During 2005, 3 Chesapeake Bay Small Watershed Grants Projects, 13 Growing Greener Grants and 10 Section 319 Grants were awarded to fund AMD treatment/restoration.
- Implementation continues in 6 targeted watersheds focused on AMD treatment/restoration.

Hydromodification

- DEP tracked 112 acres of wetlands restored/created and 666 acres enhanced for the year. The Commonwealth has restored or created 1,766 acres and enhanced 5,657 acres since tracking began in 1998.
- During 2005, another 15 dams were modified or removed bringing the total of dams removed or modified to 84. The 15 dams removed opened an additional 69.5 miles to fish passage bringing the total to 518.5 miles of stream habitat now open to migratory fish.

Virginia

Virginia's NPS Management Program is led by the Department of Conservation and Recreation. The Program utilizes partnerships to advance long and short-term goals for the reduction of nonpoint source pollution.

Agriculture

- FY05 saw over $7.9 million in agricultural cost-share assistance. Highlights for the FY2005 Ag-BMP Cost-Share Program include: 867 participating farmers, 90,058 acres under program management, and installation of 2,691 BMPs. This resulted in the following pollution reductions: 43,038 tons of waste treated, 1,015,230 lbs. of nitrogen reduced, 218,746 lbs. of phosphorus reduced, 186,623 tons of sediment reduced.
- Highlights for the FY2005 Conservation Reserve and Enhancement Program (CREP) include: 284 participating farmers, 3,135 acres of buffers and wetland restored, 339 miles of stream bank protected, 5,220 tons of sediment reduced, 28,397 lbs. of nitrogen reduced, and 5,896 lbs. of phosphorous reduced.
- Final revisions to DCRs Nutrient Management regulations were made that improved application timing of nitrogen containing nutrient sources and provided a more substantial phosphorus application criteria.
- A new state law became effective July 1, 2005 that requires all state owned lands that receive nutrient applications to have a Nutrient Management Plan.

- Nutrient Management Specialists developed plans that covered 107,842 acres during 2005.
- DCR committed $400,000 of state Water Quality Improvement Act funds to an innovative incentive program to provide incentives to Virginia dairy farmers if they feed phosphorus at or below specified levels.

State-funded NPS Activities:

- For fiscal years 2005 and 2006, a total of $36.9 million became available through the Water Quality Improvement Fund for NPS implementation.

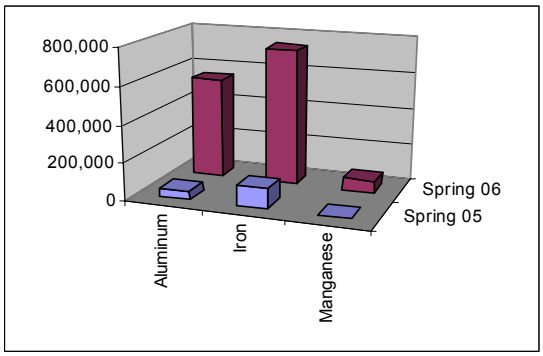
TMDL/NPS Implementation and Development Projects:

In 2005 Virginia continued the development of TMDLs to meet the 2010 consent decree.

- The TMDL Development Program completed 225 TMDLs for free flowing stream segments of 24 shellfish closure TMDLs from 1999 to December 2005. Approximately 149 of these plans have been contracted for completion by May 1, 2006.
- Just over 300 consent decree waters remain and are scheduled for TMDL development by 2010.
- Three pilot projects (Middle Fork Holston, North River, and Blackwater River).

In 2005 Virginia continued the 319(h) funded TMDL/NPS Implementation plans and projects:

- Three new TMDL/NPS implementation projects were initiated: Catoctin Creek, Holmans Creek and Willis River.
- Together all six projects installed BMPs that resulted in the
- following pollution reductions: 3.39 E+15 cfu100 ml of fecal coliform, 685.14 tons of sediment, 993.4 lbs. of phosphorus, and 5,259.9 lbs. of nitrogen.
- Muddy Creek and Lower Dry Run, two watersheds of the North River Project were selected as Success Stories for 2005/2006. Middle Fork Holston project was selected as a success story for 2005.
- Six additional TMDL/NPS Implementation Plans were started.



Reductions tied to abandoned mine drainage of aluminum, iron and manganese increased by 1100%, 580% and 6400%, respectively throughout Region III in 2005.

Forestry

- As of June 30, 2005 Virginia has restored riparian buffers along 2,707 miles of rivers and streams statewide; 1,562 miles are located within the Chesapeake Bay watershed, meeting and exceeding the goal of restoring 610 miles within the Bay's watershed.
- Virginia has also exceeded the original riparian buffers restoration goal set in 1996 by over 900 miles well ahead of the 2010 target date. This was achieved in part through Virginia's participation in the CREP program as highlighted above.

Stormwater/Erosion & Sediment Control:

- In January 2005 DCR took over regulatory authority of National Pollutant Discharge Elimination System (NPDES) programs related to municipal separate storm sewer systems (MS4) and construction activities, thus integrating all statewide stormwater programs. As a result, DCR is responsible for the issuance, denial, revocation, termination and enforcement of NPDES permits for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program.
- For the period of January 29, 2005 through December 31, 2005, approximately 1,800 land disturbing activities were issued General Permits and DCR staff completed approximately 500 site inspections for compliance.
- DCR staff conducted 35 sediment and erosion control classes for 1,500 participants. Approximately 500 people were certified. In addition 2,700 people were trained and certified as Responsible Land Disturbers.

Citizen Volunteer Campaigns/Monitoring

- An inventory by Virginia Water Monitoring Council reported that there were approximately 180 water quality monitoring groups, and 130 citizen monitoring organizations in Virginia. Approximately 100 of these monitoring organizations are currently participating. In 2005, Department of Environmental Quality (DEQ) set an agency goal to use citizen monitoring data to assess the water quality of at least 3,000 stream miles by 2010 that were previously not assessed by DEQ.

- For the upcoming 2006 305(b)/303(d) Water Quality Assessment Report, DEQ received an unprecedented quantity of data from 22 citizen monitoring organizations comprising of 68 citizen groups that monitored 815 sites. In addition, DEQ received a record number of 73 nominations from the public in 2005 covering portions of 46 streams and rivers in Virginia to aid DEQ in identifying areas to consider for follow-up monitoring.

West Virginia

The NPS Program supports the efforts of four WV state agencies to reduce nonpoint source pollution from various land use activities; those agencies are the WV Department of Environmental Protection ,WV Conservation Agency, Division of Health and Human Resources, Division of Water and Waste Management and the WV Division of Forestry. West Virginia's main challenges for nonpoint source pollution lie with agricultural runoff, acid mine drainage, and the effects of poorly built and un-maintained dirt roads. The majority of resources are directed to restore streams by implementing watershed plans.

Volunteer Monitoring

- Approximately 1066 people participated in WV Save Our Streams Workshops; 331 volunteers were certified, with 34% being novice program members.
- Two water monitoring workshops were coordinated with local high school science classes and will now be part of science curriculum, as well as one of the primary activities of the schools after-school, environmental clubs, and summer learning programs.

Jami Thompson gives an Enviroscape Presentation at Cedar Lakes in Ripley, WV for Conservation Day.

Outreach & Education

- The WV Conservation Agency educated over 560 students through 15 Enviroscape presentations.
- A brochure was produced through the Watershed Resource Center on the importance of riparian areas and distributed statewide.
- WV Division of Forestry conducted 76 workshops for 2009 loggers that included information on logging sediment and erosion control BMPs.
- WV DEP Office of Oil and Gas conducted 22 oil and gas workshops for 616 contractors that included information on sediment and erosion control BMPs for road construction and maintenance.
- With the support of a 319 grant over 19,000 copies of a newspaper insert on stormwater were distributed and 125 drains were marked.
- Two workshops were held focusing on on-site/decentralized wastewater issues.

Road & Stream Bank Restoration/Stabilization

- 230 feet of eroding stream bank that had lost an estimated 12.4 tons of sediment in Watters Smith State Park was stabilized.
- A stream access and road restoration project that eliminated 512 tons of sediment from the Cheat River was completed.
- A gas road and pipeline that was being used as an unofficial off-road track was restored, reducing 63.5 tons of sediment from the Upper Buckhannon River.
- With funding from the 319 Base Grant approximately 1,000 linear feet of stream bank was restored within the Second Creek watershed.
- An AGO grant project combined stream access work and road restoration in the Cheat River watershed. Heavy use by ATV riders and party groups had caused considerable damage over the past two decades. This project required grading, liming and seeding the vast disturbed parking areas, ATV trails and the launch ramp for kayaks and canoes. Parking areas and official roads were graveled and the ramp was stabilized with Geoweb and then gravel. Then all "unofficial" ATV trails were blocked using large boulders.

Construction

- Sediment and Erosion Control Plans were reviewed and technical assistance on BMPs was provided to several contractors and developers for sites under one acre.
- A sediment and erosion control workshop was held in October 2005.

- A Contractor's Demonstration was presented at Warms Springs Middle School in Berkeley Springs, WV. The presenters were the Morgan County Planning Commission, ACF Environmental and F&M Erosion Controls. They demonstrated new and innovative sediment and erosion control techniques and also gave demonstrations on proper installation of silt fence, stabilizing construction entrance sites, turf reinforcement and a triangular silt dike.

Agriculture

- The WV Lime Incentive Program promotes proper grassland management and erosion control. Proper fertilizer application, water quality, soils and grassland management has been discussed with landowners through this program. In addition to accepting applications and being a part of the technical assistance for the program, multiple soil samples have been taken and other necessary tasks have been completed to implement the program.
- Nitrogen testing has been completed on 1,200 acres of land.
- Technical guidance has been provided on the design and installation of four large animal waste facilities. These will require nutrient management planning and CNMP's on the acreages that will be impacted and utilized for disposal of the animal wastes collected.
- Estimated Load Reductions from agriculture projects: nitrogen – 1,897,777 lbs., phosphorus – 2,294,492 lbs., sediment – 6,091,190 lbs.

Pecks Run, Before & After.

Acid Mine Drainage

- Estimated Load Reductions from AMD Projects; Acid – 386.16 tons; Iron – 32.68 tons; Aluminum – 16.73 tons.

Blaser AMD treatment system, Cheat watershed.

A full version of these reports are available at http:www.epa.gov/reg3wapd/nps/accomplishments.htm

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